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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,628	11/28/2003	Var Lordahl	Valve	7115
42811	7590	06/08/2006	EXAMINER	
KAJANE MCMANUS MCMANUS AND ASSOCIATES 1505 ASHLEY COURT WOODSTOCK, IL 60098			HEPPERLE, STEPHEN M	
			ART UNIT	PAPER NUMBER
			3753	

DATE MAILED: 06/08/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>		<b>Applicant(s)</b>	
	10/722,628		LORDAHL ET AL.	
	<b>Examiner</b>		<b>Art Unit</b>	
	Stephen M. Hepperle		3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 19 May 2006.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 May 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)             | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)    | Paper No(s)/Mail Date. _____  |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____   | 6) <input type="checkbox"/> Other: _____                                    |

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 19 May 2006 has been entered.

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-2 and 8-11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen (4,469,121) in view of Nambu or Takano et al. Moen shows a mixing valve cartridge with a pressure balancing valve spool 40 reciprocating inside plastic sleeve 24. Nambu shows a spool valve with a plastic spool inside a plastic housing, where the plastic is PTFE or PEEK (col. 4, lines 50-59). Takano teaches a pressure balancing spool made of PTFE because of light weight and self-lubrication ability (col. 4, lines 45-49). It would have been obvious to make the Moen sleeve and/or spool of PTFE as taught by Nambu because PTFE is well known for its superior chemical resistance and low friction. Alternatively, it would have been obvious to make the Moen plastic sleeve 24 and/or spool 40 of PTFE as taught by Takano to reduce weight and provide self lubrication. Regarding the limitations newly added to claim 1, the reason for the structure is given no weight in the claims, although the use of PTFE is notoriously well known for its self lubrication ability. With respect to the seals, Moen shows a seal 34 covering a portion

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of the outer cylinder of the sleeve, and an identical seal 180 degrees around the cylinder from the first, and therefore, “diametrically opposed”.

Claims 3-4 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen (4,469,121) in view of Powers et al. Powers shows a mixing valve with a pressure balancing spool having a spring 52 that biases the spool in a direction to restrict hot water from inlet 10, to assure no hot water gets through if there is no cold water (for safety). It would have been obvious to add a biasing spring to Moen to restrict hot water to prevent scalding as taught by Powers. To restrict the hot supply 16, the spring would be placed between the Moen spool 40 and stem 44. In the absence of other disclosure, it would be reasonable to assume that the Moen stem is made of metal. Moen also teaches (col. 5, lines 46-53) that it uses a shear member of the type used in patent application 011,405, now US patent 4,305,419, which patent has a stainless steel stem. Alternatively, it would have been obvious to make the stem of metal to transmit force of the handle 20 to the valve, avoid stripping of the screw that fastens the handle, and because that is the normal material because of its strength.

Claims 5-7 and 12-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moen (4,469,121) in view of Nambu or Takano et al. further in view of Powers et al. Powers shows a mixing valve with a pressure balancing spool having a spring 52 that biases the spool in a direction to restrict hot water from inlet 10, to assure no hot water gets through if there is no cold water (for safety). It would have been obvious to add a biasing spring to Moen to restrict hot water to prevent scalding as taught by Powers. To restrict the hot supply 16, the spring would be placed between the Moen spool 40 and stem 44. In the absence of other disclosure, it would be reasonable to assume that the Moen stem is made of metal. Moen also teaches (col. 5, lines 46-

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53) that it uses a shear member of the type used in patent application 011,405, now US patent 4,305,419, which patent has a stainless steel stem. Alternatively, it would have been obvious to make the stem of metal to transmit force of the handle 20 to the valve, avoid stripping of the screw that fastens the handle, and because that is the normal material because of its strength.

Applicant's arguments filed 19 May 2006 have been fully considered but they are not persuasive. As stated above, Moen is seen as providing the new limitation regarding seals. The recitation of PTFE's inherent qualities are inherently met in a combination involving PTFE.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Dempsey shows a valve similar to applicants, with seals that appear to be identical to each other and applicant's seals. The valve stem and spool are stainless steel for improved corrosion resistance. Moen (4,417,602) teaches that "it is prevailing practice" to make many mixing valve parts of plastic.

All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after

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the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Stephen M. Hepperle whose telephone number is 571-272-4913. The examiner can normally be reached on Monday through Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on 571-272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Stephen M. Hepperle  
Primary Examiner  
Art Unit 3753